

**Amendments to the claims:**

The listing of claims will replace all prior versions and listings of claims in the application:

**Listing of Claims:**

Claims 41-67 cancelled.

Claim 68 (new) A dry, water resistant coaxial cable consisting of: a metal core conductor element, a dielectric element around the core conductor based on three layers, the first layer being applied onto the conductor as a uniformly thick film based on low density polyethylene mixed with a vinyl or acrylic adhesive, the second layer being based on an expanded polyethylene mix consisting of low density polyethylene or mixture of low, medium and high density polyethylenes and a swelling agent selected from azodicarbonamide, p-toluene sulphonylhydrazide, or 5-phenyltetrazol, and optionally a reinforcement layer of the same characteristics as the first layer; wherein it has a second external conductor element formed by a tape made of an aluminum or copper alloy or combined with other elements and surrounding said conductor consisting of a water penetration protective element keeping it dry and based on one or several swellable fibers or tapes formed by polyester threads or other swellable fibers; and the protective cover based on low, medium, high density polyethylene or a combination thereof.

Claim 69 (new) The dry coaxial cable according to claim 68 wherein the core conductor is copper plated aluminum wire, with a uniform circular cross section of  $3.15 \pm 0.03$  mm diameter.

Claim 70 (new) The dry coaxial cable according to claim 68 wherein the adhesive component is chosen between ethylene acrylate acid or ethylene vinyl acid permitting better adherence and water resistance between the core conductor and the dielectric element.

Claim 71 (new) The dry coaxial cable according to claim 68 wherein the second polyethylene film applied onto the core conductor shows better watertightness to the

swellable dielectric improves its superficial appearance and offers a  $13.0 \pm 0.10$  mm diameter.

Claim 72 (new) The dry coaxial cable according to claim 68 wherein the external conductor is formed by a tape made of aluminum or copper alloy or mixture thereof is formed in a cylindrical pipe and can be longitudinally welded, extruded or the edges can be overlapped and it has a thickness of 0.34 mm and the diameter on the pipe is  $13.7 \pm 0.10$  mm diameter.

Claim 73 (new) The dry coaxial cable according to claim 68 wherein the water penetration protective element consists of swellable tapes placed helically, annularly or longitudinally.

Claim 74 (new) The dry coaxial cable according to claim 73 wherein the moisture protection elements have an adsorption speed of  $\geq 15$  ml/g per minute and their absorption capacity is over 30 ml/g.

Claim 74 (new) The dry coaxial cable according to claim 68 wherein the external cover is made of medium density polyethylene and has a diameter on cover of  $15.5 \text{ mm} \pm 0.10$  mm with a  $0.67 \text{ mm} \pm 0.02$  mm thickness.

Claim 75 (new) A manufacturing method for the dry coaxial cable according to claim 68 consisting of the following steps:

- a) preparing a core conductor feeding reel welding its end onto another reel so that the manufacturing can be continuous;
- b) passing the core conductor onto a first polyethylene film application through extrusion, the polymer being selected from polyethylene, polyester or polypropylene mixed with an ethylene acrylate acid adhesive;
- c) extruding based on high, low or medium density polyethylene mix with a swellable agent selected from azodicarbonamide, p-toluenesulphonyl hydrazide or 5-phenyl tetrazol with high pressure inert gas injection to improve cellular expansion, optionally a second

film having the same characteristics as the first one through co-extrusion;

d) cooling at room temperature;

e) obtaining a wound core;

f) applying a pipe shaped external conductor made of aluminum, copper or a combination thereof; said pipe can be formed through welding, or overlapping of edges or through extrusion;

g) applying water penetration protection element helically, annularly or longitudinally;  
and

h) applying the protective cover through the extrusion of low, medium, high density polyethylene or combination thereof.

Claim 76 (new). The manufacturing method according to claim 75 wherein the core can be manufactured through triple co-extrusion in three extruders, one for the first film, another for the main insulation and the other for the second film which are connected to an extrusion head.